IN THE SPECIFICATION

Please replace paragraph [0005] in the specification with the following amended paragraph.

[0005] The structure contemplated is composed of multiple layers of silicon, which are either doped or intrinsic, borosilicate glass (Pyrex) and various metals. Silicon may or may not be partially or totally covered with silicon dioxide. The Pyrex is chosen to be suitable for field assisted bonding to silicon and the various metal layers are selected for their adherence to silicon or Pyrex, as well as their conductivity and chemical reactivity.

Please replace paragraph [0012] in the specification with the following amended paragraph.

[0012] Figure 4 consists of Figures 4A, 4B and 4C and basically shows a wafer of Pyrex which is eventually bonded to a wafer of silicon to form a composite structure as shown in Figure [[4A]] 4C.

Please replace paragraph [0018] in the specification with the following amended paragraph.

[0018] Referring to Figure 1, there is shown an example of a basic structure according to this invention. In Figure 1 a layer of silicon 11 is bonded to a layer of borosilicate (Pyrex) glass 10, which in turn is bonded to a another layer of silicon 12. The silicon is bonded to the Pyrex layer 10 by means of a field-assisted bond. The field-assisted bond is formed by applying pressure between the silicon and the Pyrex under the influence of a voltage, which causes the silicon molecules to migrate into the

glass molecules, forming a strong bond. As one knows, Pyrex glass contains sodium and the use of Pyrex for layer [[11]] 10 makes the use of sodium ion transport during the bonding process to bond to the silicon. One can also shape the Pyrex layer 10 so that one can form internal conducting paths. Thus, Figure 1 the two pieces of silicon 11 and 12 separated by a center portion, which is a thin layer of Pyrex 10.

Please replace paragraph [0020] in the specification with the following amended paragraph.

[0020] Referring to Figure 3 there is shown an extremely enlarged view of a series of micropipes, which are formed in the Pyrex or the silicon. As we can see, there are micropipes [[41,]] 42 and 45, which are oriented in the vertical direction with micropipes 43 and 44 oriented in the horizontal direction. The intersection between pipes 44 and pipe 45 creates a cross point 40, which is a localized area in the glass or silicon, where fluid can be introduced into the pipe. At the localized area, the molecule will exist and by the use of electric fields or other devices, one can now cause the migration of sodium ions and therefore produce oxygen ions which are dangling at that location. One can now attach a molecule for a specific spot on the silicon structure as shown in Figures 1 and 2. It is understood that Figure 3 is an enlarged view and the matrix contains thousands of micropipes developed in the structures of Figures 1 and 2.

Please insert the following new paragraph after paragraph [0020] in the specification.

[0020.1] Figure 4 consists of Figures 4A, 4B and 4C and basically shows a wafer of Pyrex which is eventually bonded to a wafer of silicon to form a composite structure as shown in Figure 4C.

Please replace paragraph [0025] in the specification with the following amended paragraph.

[0025] Referring to Figure 9 which consists of Figure 9A, 9B and 9C, there is shown in Figure 9A a silicon wafer 116 having through channels 104, 105 and 106. Shown in Figure 9B is another silicon wafer 110 having a Pyrex layer 101 deposited thereon. The silicon wafer 110 has corresponding channels 104A, 105A and 106A. Each channel has localized high field reaction areas designated by 102 and 103. These high field reaction areas are basically points which are tips which are directed along apertures as [[106]] 106A and [[104]] 104A, and which will produce high electric fields where the voltage is applied between the silicon and Pyrex between the wafer. These high electric fields which are produced at the tips will enable the efficient reaction areas to occur at the localized tip areas, plus each of the tips as 102 and 103 terminates in a sharp point. As one can understand, when a voltage is applied between the chips, the sharp points will basically create high voltage fields, which are localized and whereby reactions can take place as indicated above.